



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|------------------------|-------------------------|----------------------|------------------|
| 09/732,545 | 12/08/2000 | Dennis A. Barney | 00-216 | 4172 |
| 75 | 90 04/25/2002 | | | |
| W. Bryan McPherson III Caterpillar Inc. Intellectual Property Department AB6490, 100 N.E. Adams Street Peoria, IL 61629-6490 | | | EXAMINER | |
| | | | PRETLOW, DEMETRIUS R | |
| | | | ART UNIT | PAPER NUMBER |
| 1 001111, 12 010 | , , • ,,, • | | 2863 | |
| | | DATE MAILED: 04/25/2002 | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| Application No. Office Action Summary Examiner Demetrius R. Pretlow Th MAILING DATE of this communication appears on the cover sheet with th correspondence addressed for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. | ·ss | | | | | |
|--|------------------|--|--|--|--|--|
| Th MAILING DATE of this communication appears on the cover sheet with the correspondence address of the MAILING DATE of this communication appears on the cover sheet with the correspondence address of the MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. | ·ss | | | | | |
| Demetrius R. Pretlow Th MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. | ess | | | | | |
| Th MAILING DATE of this communication appears on the cover sheet with the correspondence address of the cover sheet with the correspondence address of the Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. | ess | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. | ess | | | | | |
| THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. | Period for Reply | | | | | |
| THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. | | | | | | |
| 1) Responsive to communication(s) filed on <u>08 December 2000</u> . | | | | | | |
| 2a) This action is FINAL . 2b) This action is non-final. | | | | | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims | | | | | | |
| 4)⊠ Claim(s) <u>1-38</u> is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>1-38</u> is/are rejected. | | | | | | |
| 7) Claim(s) is/are objected to. | | | | | | |
| 8) Claim(s) are subject to restriction and/or election requirement. | | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Examiner. | | | | | | |
| 10)⊠ The drawing(s) filed on <u>08 December 2000</u> is/are: a)□ accepted or b)⊠ objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| 11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner. | | | | | | |
| If approved, corrected drawings are required in reply to this Office action. | | | | | | |
| 12)☐ The oath or declaration is objected to by the Examiner. | | | | | | |
| Priority under 35 U.S.C. §§ 119 and 120 | | | | | | |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | | |
| a) All b) Some * c) None of: | | | | | | |
| 1. Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application). | | | | | | |
| a) ☐ The translation of the foreign language provisional application has been received. 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121. | | | | | | |
| Attachment(s) | | | | | | |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 5) Notice of Informal Patent Application (PTO-15 6) Other: | | | | | | |

Application/Control Number: 09/732,545 Page 2

Art Unit: 2863

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the steps in claims 2-14 and 26-38 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because in Figure 1, item 110 does not have a text label. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 22 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claimed subject matter of at least one of non-master controllers initiates said arbitration in response to failing

Art Unit: 2863

to receive one of said official time signal and said operating characteristic signal is not in the specification.

Claim Rejections - 35 USC § 102

- 5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
 A person shall be entitled to a patent unless
 - (e) the invention was described in-

the treaty defined in section 351(a).

- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under
- 6. Claims 1-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Sugano et al. Sugano et al. teach a plurality of controllers having a local clock and a communication network. Note column 2, lines 38-44 and claim 9, lines 1-8. Sugano et al. teach a vehicle fault diagnostic apparatus for detecting a fault of at least one sensor and an actuator, which is interpreted as establishing an operating characteristic. Note Sugano et al. column 4, lines 21-28 and Note Sugano et al. column 3, lines 12-24. Sugano et al. teach determining whether to update a local time in response to operating characteristics. Note Sugano et al. column 4, lines 21-38 and column 7, lines 40-67. Sugano et al. teach updating

local time using the local clock in response to the update determination. Note

Sugano et al. column 5, lines 49-53 column 8, lines 29-46. Sugano et al. also

Application/Control Number: 09/732,545

Art Unit: 2863

teach each of said plurality of controllers configured to establish an operating characteristic. Note Sugano et al. column 43-49, and column 3, lines 60-64.

In reference to claims 2 and 26, Sugano et al. teach receiving an official time. Note column 3, lines 20-26. Sugan et al. teach determining whether the difference between the main standard time and the secondary standard time is 1, which is interpreted as determining the difference between official time and local time. Note Sugano et al. column 7, lines 55-61. Sugano et al. teach that when the main standard time is renewed by one renewal unit time, the CPU renews the secondary standard time, secondary operating time, the exchange time, stored in each of the controllers, based on the new standard time, which suggests synchronization. Note Sugano et al. column 8, lines 25-46.

In reference to claims 3,4, 20, 28 and 29, receiving the operating characteristic indicative of a machine and engine would be inherent to the system of Sugano et al. Note column 4, lines 21-67.

In reference to claim 5, 18, 21,30 Sugano et al. teach if the main standard time is 1, the system advances to step 119 to 121 to 122 which equalizes the secondary time to the main standard time which is interpreted as determining to synchronize local time with official time in response to a difference being greater than a first threshold. Note column 7, lines 57-62 to column 8, lines 1-65.

In reference to claim 6, 16, 27 Sugano et al. teach a master controller (1). Note column 1, lines 12-45 and column 4, lines 59-62.

Application/Control Number: 09/732,545

Art Unit: 2863

In reference to claim 7, 17, 31 Sugano et al teach receiving official time from the master controller. Note column 3, lines 13-45.

In reference to claim 8, 19,32, Sugano et al teach receiving an operating characteristic signal from the master controller. Note Sugano et al. column 4, lines 59-67.

In reference to claims 9 and 10, 22 and 33 Sugano et al. does not explicitly teach the master controller participating in an arbitration process among the controllers, however the arbitration process which includes receiving an arbitration signal would be inherent to the system of Sugano et al. Note column 5, lines 43-47.

In reference to claim 11, 23, 35 Sugano et al. teach the master controller is not limited thereto, and any one of the plurality of controllers in the vehicle control apparatus can be selected as the master controller. Note column 5, lines 43-47. The selection of a master controller would inherently include receiving a priority signal and determining whether to become the master controller in response to received at least one priority signal.

In reference to claim 12, 13,14, 24, 34,36,37,38 Sugano et al. teach the master controller is not limited thereto, and any one of the priority of controllers in the vehicle control apparatus can be selected as the master controller. Note column 5, lines 43-47. The selection of a master controller would inherently include receiving a plurality signal and determining whether to become the master controller in response to at least one priority signal and the initiation of an arbitration process.

Application/Control Number: 09/732,545

Art Unit: 2863

Claims 15 and 25 contain the limitations similar to those in claim 1, which was

Page 6

discussed above.

7. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Demetrius R. Pretlow whose telephone number is

(703) 308-6722. The examiner can normally be reached on Monday - Friday

from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Hilten, can be reached at (703) 308-0719. The fax phone number for

the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 308-

1782.

Demetrius R. Pretlow

Patent Examiner

JOHN S. HILTEN
SUPERVISORY PATENT EXAMINER

TECHNOLOGY CENTER 2800